

CLAIMS

1. A filter body of a fluid filter, especially an air filter having the following features:
- the filter body (1) has a tubular cylindrical filter element (2) made of a filter material,
  - an end disk (3) is mounted on at least one axial end of the filter element (2),
  - the end disk (3) has a seal (9) which acts radially and which comes to rest radially on a cylindrical sealing face (10) in the case of a filter body (1) inserted into a filter housing, said sealing face being arranged coaxially with respect to the filter body (1),
  - the end disk (3) has supporting means (6, 15) extending in a ring-shaped design on the outside axially of the end disk (3) with respect to the filter element (2),
  - the supporting means (6, 15) are designed with axial elasticity and are supported on a supporting contour (11) which is formed on the filter housing and extends parallel to the end disk (3) in the case of a filter body (1) inserted into the filter housing, so that the filter body (1) is positioned axially in the filter housing.
- characterized by the following features:
- the supporting means have an annular collar (6) which projects axially outward away from the end disk (3) with respect to the filter element (2)

and is designed with axial elasticity in an axial section (15),

- in the case of a filter body (1) inserted into the filter housing, the elastic section (15) is supported axially on the supporting contour (11),
- annular collar (6) and end disk (3) are made of an injection-molded plastic in one piece.

2. The filter body according to claim 1,

characterized in that

the annular collar (6), the end disk (3) and the seal (9) are designed as an injection-molded unit made of plastic in one piece.

3. The filter body according to claim 1 or 2,

characterized in that

the seal (9) is formed on the annular collar (6).

4. The filter body according to claim 3,

characterized in that

the seal (9) and the annular collar (6) work together in such a way that an increasing axial deformation of the annular collar (6) causes an increasing radial adjustment of the seal (9) in the direction of its radial sealing effect.

5. The filter body according to one of claims 2 - 4,

characterized in that

the unit comprising the annular collar (6) and the seal (9) consists of at least two axial sections (7, 8) which are joined together by a connecting section (9), where the connecting section forms a ring-shaped sealing lip (9) which acts radially inward, and the axial section (7) arranged at a greater distance away axially is supported on the supporting contour (11), with the axial section (7) which is arranged farther toward the outside axially being inclined away from the sealing face (10), starting from the sealing lip (9), while the axial section (8) which is arranged farther inward axially runs at an inclination toward the sealing face (10), starting from the sealing lip (9).

6. The filter body according to one of claims 1 - 5,

characterized in that

the annular collar (6) has a corrugated or zigzag-shaped profile in a central longitudinal section.

7. The filter body according to one of claims 1 - 6,

characterized in that

the filter body (1) has an inner frame (13) which supports the filter element (2) radially and supports the end disks (3) axially.

8. The filter body according to at least claim 5,

characterized in that

a unit comprising the material thickness of the seal (9) and the annular collar (6) measured in the profile decreases in the direction of the connecting section

(9) with an increase in the distance from the end disk (3) in the axial section (8) facing the end disk (3) and is essentially constant in the axial section (7) which faces away from the end disk (3).

9. The filter body according to one of the preceding claims,

characterized in that

the sealing face (10) is formed by a cylindrical outer jacket of a connection (22) which extends inside the filter housing coaxially with the filter body (1), and the end disk (3) has a central opening (4) on whose inside edge (5) the annular collar (6) is provided.

10. The filter body according to one of the preceding claims,

characterized in that

both axial ends of the filter element (2) are equipped with one of these end disks (3), so that the filter body (1) inserted into the filter housing is centered axially in the filter housing.

11. The filter body according to one of the preceding claims,

characterized in that

TEEE is used to produce the unit consisting of the end disk (3) and the annular collar (6).

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